



SPACE FLORIDA EDUCATION FACT SHEET (2010)

Space Florida: Committed to Education

Space Florida provides a variety of strategic education programs that benefit Florida students, teachers and research/workforce entities. Check: www.spaceflorida.gov.

Recent Accomplishments:

Space Florida partners with the Florida Department of Education (DoE), NASA-KSC, Florida Space Grant Consortium, the aerospace industry, as well as schools, universities and community colleges statewide. Recent accomplishments include:

1. **'Butterflies in Space'** program – partnering with the DoE, Space Florida registered 722 Florida schools as participants in a research program which saw butterfly larvae taken to the International Space Station (ISS) aboard STS-129 in November 2009. Nearly 20,000 Florida teachers and students participated in this program, and through the development of a special website, all student participants were able to view the development of the butterflies in space, while comparing them to the butterflies in their Earthly habitats in Florida schools.
2. **'Exploring Microgravity'** DVD – Space Florida, with cooperation and encouragement from DoE, developed a DVD on the exciting subject of microgravity. This informative and instructional DVD entitled 'Exploring Microgravity' will be of great assistance to Florida teachers as they instruct students in areas such as Newton's Laws, the fundamental states of matter, solids, liquids and gases – and the forces that effect them in a microgravity environment. Accompanying this DVD is a NASA-produced workbook on the mathematics of Microgravity. The DVD is set for official release in Spring 2010 and will be available free on the Space Florida website. Currently, 'Exploring Microgravity' is available as additional reference material for all teachers on the DoE website: <http://www.cpalms.org>. The DVD was tested in the classroom environment and initial findings concur with findings by PBS: students' understanding, comprehension, and test scores show a marked improvement with the addition of a visual aid.

NOTE: In February 2010, the Space Florida-produced DVD "Exploring Microgravity" received two regional Emmy Awards – the Nashville Award and the Gracie Allen Award.

3. **Space Florida Teacher Workshop Academies** – During the past three years, Space Florida – with the support of NASA-KSC, the Florida Space Grant Consortium, and the Florida DoE – has held 18 separate five-day, inquiry-based workshops statewide, impacting more than 536 teachers (and thereby thousands of students) across the state. Participants were instructed as to how to practice the Inquiry methodology in the classroom, while also building and launching scientific payloads on meteorological balloons. Teachers received free special Inquiry kits (valued at \$200 each) and a teachers inquiry instruction guide entitled "Inquiry in the Classroom."
4. **Florida Space Research Program (FSRP):** In November 2009, Space Florida and the Florida Space Grant Consortium partnered to financially support Florida aerospace research throughout the State of Florida. In summer 2009 the FSRP funded 22 separate research entities. The intention of this annual program is to combine both Federal and State funds for projects that diversify Florida's space industry and research, while supporting aerospace workforce development.

5. **Space Florida Academies** are provided to Florida middle/high school students and undergraduates at Kennedy Space Center (KSC) at selected time periods (check website for dates). These five-day programs include building payloads for scientific weather balloons, and KSC site visits. Partners include NASA-KSC and the Florida Space Grant Consortium. In 2009, 172 students attended 10 Space Florida five-day Academies, with hundreds more attending one- and two-day events at KSC. The Academies have become stepping stones to summer internships, co-ops and permanent jobs in the aerospace industry. Lockheed Martin and Northrop Grumman – both NASA contractors – have financially sponsored three Academies to date, as they stand to directly benefit from the talented engineering and science graduates the programs will help produce.
6. **Mars Desert Research Station (Utah):** Space Florida, NASA-KSC and the Mars Society recently completed a state-wide design competition for middle and high school students. Space Florida received a total of 32 completed design entries. The competition invited Florida students to design scientific experiments to send to the Mars Desert Research Station (MDRS) in Utah in March 2010. The MDRS is one of four such facilities throughout the world, and is operated by **The Mars Society**. Each MARS facility can simulate many of the environmental and geological conditions encountered on the Mars surface.

In January 2010, Space Florida announced the names of the three winning Florida school teams in the **Mars Experiment Design Competition**. The winners in the three scientific categories were as follows:

1. **Human Factors** – Tech-Play-Zone Red Voyagers, Mulrennan Middle School, Hillsborough County. Experiment Title: “Emotional Dynamics.”
2. **Mission Operations** – Big Red Mission Crew, Collier County, Golden Gate High School. Experiment Title: “How To Produce Energy.”
3. **Geology / Biology Field Studies** – Geeky Lions, Orange County, Lake Nona Middle/High School. Experiment Title: “Can Water Plus Martian Soil Equal Life?”

About Space Florida: Space Florida is the single point of contact for statewide aerospace-related economic development activities. Space Florida is committed to attracting and expanding the next generation of space industry businesses, including those from the commercial, civil and military sectors. Visit www.SpaceFlorida.gov for more information.